

8

$$6x^2 + 11x - 10$$

$$ac = -60$$

$$b = 11$$

$$\begin{array}{c} 2x \\ +5 \end{array} \begin{array}{|c|c|} \hline 6x^2 & -4x \\ \hline 15x & -10 \\ \hline \end{array}$$

9

$$x - 3y = 18$$

$$\cancel{2x + y = 1}$$

$$6x + 3y = 3$$

$$7x = 21$$

$$x = 3$$

$$\begin{array}{r} 3 \\ -3 \end{array} - 3y = 18$$

$$-3y = 15$$

$$y = -5$$

10

$$\frac{2t+1}{3} + \frac{t-1}{5} = 1$$

$$6t + 3 + 5t - 5 = 15$$

$$11t - 2 = 15$$

$$+2 \quad +2$$

$$11t = 17$$

$$t = \frac{17}{11}$$

11

$$2x^2 + 5 = 2x$$

$$-2x \quad -2x$$

$$2x^2 - 2x + 5 = 0$$

$$\frac{2 \pm \sqrt{4 - 4(2)(5)}}{2(2)}$$

$$\frac{2 \pm \sqrt{-36}}{4} = \frac{2 \pm 6i}{4} = \frac{1 \pm 3i}{2}$$

Solve  $-mx + r = nx - s$  for  $x$ .

$$-nx - nx$$

$$\begin{array}{rcl} -mx + r - nx & = & -s \\ -r & & -r \end{array}$$

$$-mx - nx = -s - r$$

$$\begin{array}{rcl} -x(\cancel{m+n}) & = & \frac{-s-r}{\cancel{m+n}} \\ \cancel{m+n} & & m+n \end{array}$$

$$\begin{array}{rcl} -x & = & \frac{-s-r}{m+n} \cdot -1 \\ \cdot -1 & & \end{array}$$

$$x = \frac{s+r}{m+n}$$

The slope of the line  $2x - 3y = 8$  is:

$$\begin{array}{rcl} & +3y & +3y \\ 2x & = & 3y + 8 \\ -8 & & -8 \\ \hline 2x - 8 & = & 3y \\ \hline \frac{2x-8}{3} & = & \frac{3y}{3} \\ \frac{2}{3}x - \frac{8}{3} & = & y \end{array}$$